

What is claimed is:

1. A semiconductor device provided with a memory cell including a first driver transistor, a second driver transistor, a first transfer transistor, a second transfer transistor, a first load transistor and a second load transistor, the semiconductor device comprising:

10 a first gate-gate electrode layer including a gate electrode of the first load transistor and a gate electrode of the first driver transistor;

a second gate-gate electrode layer including a gate electrode of the second load transistor and a gate electrode of the second driver transistor;

15 a first drain-drain wiring layer which forms a part of a connection layer that electrically connects a drain region of the first load transistor and a drain region of the first driver transistor;

20 a second drain-drain wiring layer which forms a part of a connection layer that electrically connects a drain region of the second load transistor and a drain region of the second driver transistor;

25 a first drain-gate wiring layer which forms a part of a connection layer that electrically connects the first gate-gate electrode layer and the second drain-drain wiring layer; and

a second drain-gate wiring layer which forms a part of a connection layer that electrically connects the second

gate-gate electrode layer and the first drain-drain wiring layer,

wherein the first drain-gate wiring layer and the second drain-gate wiring layer are located in different layers,  
5 respectively, and

wherein a width of the first gate-gate electrode layer in the first load transistor is larger than the width of the first gate-gate electrode layer in the first driver transistor.

10 2. The semiconductor device according to claim 1, wherein a width of the second gate-gate electrode layer in the second load transistor is larger than the width of the second gate-gate electrode layer in the second driver transistor.

15 3. The semiconductor device according to claim 1, comprising a first adjacent memory cell which is located adjacent to a side of the memory cell where the first gate-gate electrode layer is provided,

wherein the first adjacent memory cell includes a third  
20 gate-gate electrode layer having a gate electrode of a third load transistor and a gate electrode of a third driver transistor,

wherein the first load transistor and the third load transistor commonly use a first impurity layer as a source  
25 region,

wherein a first contact section is provided on the first impurity layer, and

wherein the first contact section is provided in a region other than a region between the first gate-gate electrode layer and the third gate-gate electrode layer.

- 5 4. The semiconductor device according to claim 1, comprising a second adjacent memory cell which is located adjacent to a side of the memory cell where the second gate-gate electrode layer is provided,

wherein the second adjacent memory cell includes a fourth  
10 gate-gate electrode layer having a gate electrode of a fourth load transistor and a gate electrode of a fourth driver transistor,

wherein the second load transistor and the fourth load transistor commonly use a second impurity layer as a source  
15 region,

wherein a second contact section is provided on the second impurity layer, and

wherein the second contact section is provided in a region other than a region between the second gate-gate electrode layer  
20 and the fourth gate-gate electrode.

5. The semiconductor device according to claim 1,

wherein the first drain-gate wiring layer is electrically connected to the second drain-drain wiring layer through a  
25 contact section, and

wherein the second drain-gate wiring layer is electrically connected to the second gate-gate electrode layer

through a contact section, and electrically connected to the first drain-drain wiring layer through a contact section.

6. The semiconductor device according to claim 1, wherein  
5 the first drain-gate wiring layer is located in a layer lower than the second drain-gate wiring layer.

7. The semiconductor device according to claim 1, wherein  
the first drain-gate wiring layer is located in a layer in which  
10 the first gate-gate electrode layer is provided.

8. The semiconductor device according to claim 1, wherein  
the second drain-gate wiring layer is formed across a plurality  
of layers.

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9. The semiconductor device according to claim 8,  
wherein the second drain-gate wiring layer includes a  
lower layer of the second drain-gate wiring layer and an upper  
layer of the second drain-gate wiring layer, and  
20 wherein the upper layer is located in a layer over the  
lower layer, and electrically connected to the lower layer.

10. The semiconductor device according to claim 9, wherein  
the upper layer is electrically connected to the lower layer  
25 through a contact section.

11. The semiconductor device according to claim 9,

wherein the first gate-gate electrode layer, the second gate-gate electrode layer and the first drain-gate wiring layer are located in a first conductive layer,

wherein the first drain-drain wiring layer, the second drain-drain wiring layer and the lower layer are located in a second conductive layer, and

wherein the upper layer is located in a third conductive layer.

10 12. The semiconductor device according to claim 1, wherein the second conductive layer is a nitride layer of a refractory metal.

13. The semiconductor device according to claim 1, wherein the second conductive layer has a thickness of 100 nm to 200 nm.

14. A memory system provided with the semiconductor device defined in any one of claims 1 to 13.

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15. An electronic apparatus provided with the semiconductor device defined in any one of claims 1 to 13.